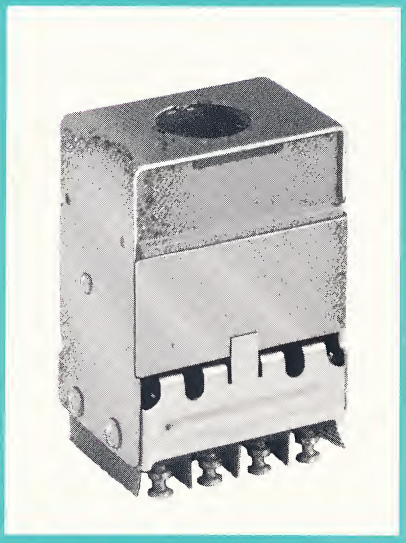
MSC

DATA SHEET

NO. 3025
REVISION B

SERIES 22 SEQUENCE ACTUATOR

4 POLE DOUBLE THROW SWITCHES



PROGRAMS FOUR MINIATURE SPDT SWITCH MODULES FOR ANY COMBINATION OF SWITCHING MODES . . . IN AS MANY AS 12 SEQUENTIAL STEPS!

A precision mechanism that will enable you to program the switching of four switch modules in any combination of modes for each of twelve step-switching operations.

Sequence Actuators have been designed to snap onto Master Specialties Twist-Lite Series illuminated pushbutton switches to offer a new capability, yet maintain design compatibility with standard switch or word indicating devices.

HOW THE SERIES 22 SEQUENCE ACTUATOR OPERATES

Each sequence actuator consists of four miniature SPDT switch modules and a precision switching mechanism comprised of four cams driven by a common shaft. Each of the 4 cams is positioned on the shaft to actuate one of the four modules.

Provision can be made to either close the switch contacts or leave the switch in the open position, according to the desired program. As many as 16 different combinations of switch positions can be made at each step of the actuator. The precision design provides for positive indexing at each position of the cam with external identification of the cam position by means of a sequence encoder dial.

DESIGN FEATURES

POSITIVE TRANSFER: Force requirements are sufficient to prohibit accidental switching or "Tease" operation.

PLATED, DOUBLE TURRET TERMINALS: Long terminals will accept two 20 gauge wires, are plated for high solderability.

ENCLOSED SWITCH MECHANISM: Enclosure protects mechanism, inhibits dust and dirt collection.

ALL STAINLESS STEEL AND PLASTIC PARTS: For any environmental conditions.

IDENTIFIED SWITCH MODULES: Large, legible letters for quick identification during assembly.

FLEXIBLE "NO BURN" SWITCH INSULATORS: Impregnated fiberglass insulators are nonflammable, do not produce offensive odors when subjected to high temperatures.

SEQUENCE IDENTIFICATION: Sequence encoder dial is visible from opening in the side of the bracket to show cam position at a glance.

PERFORMANCE CHARACTERISTICS

OPERATING FORCE: 5.5 lbs. max. when one switch contact is actuated.
7.5 lbs. max. when four switch contacts are actuated.

SWITCH RATINGS: SILVER CONTACTS:
Rated for 5 amps @ 125 or 250 VAC
@ 30 VDC, 3 amps inductive
5 amps resistive
GOLD CONTACTS:
@ 30 VDC, ½ amp inductive
1 amp resistive

ELECTRICAL LIFE: 25,000 actuations at full rated load.

MECHANICAL LIFE: 50,000 actuations.

SHOCK: Per MIL-STD-202, method 202, 50G.

VIBRATION: Per MIL-STD 202 method 204 cond. A.

DIELECTRIC: 1,000 volts at sea level for one minute.

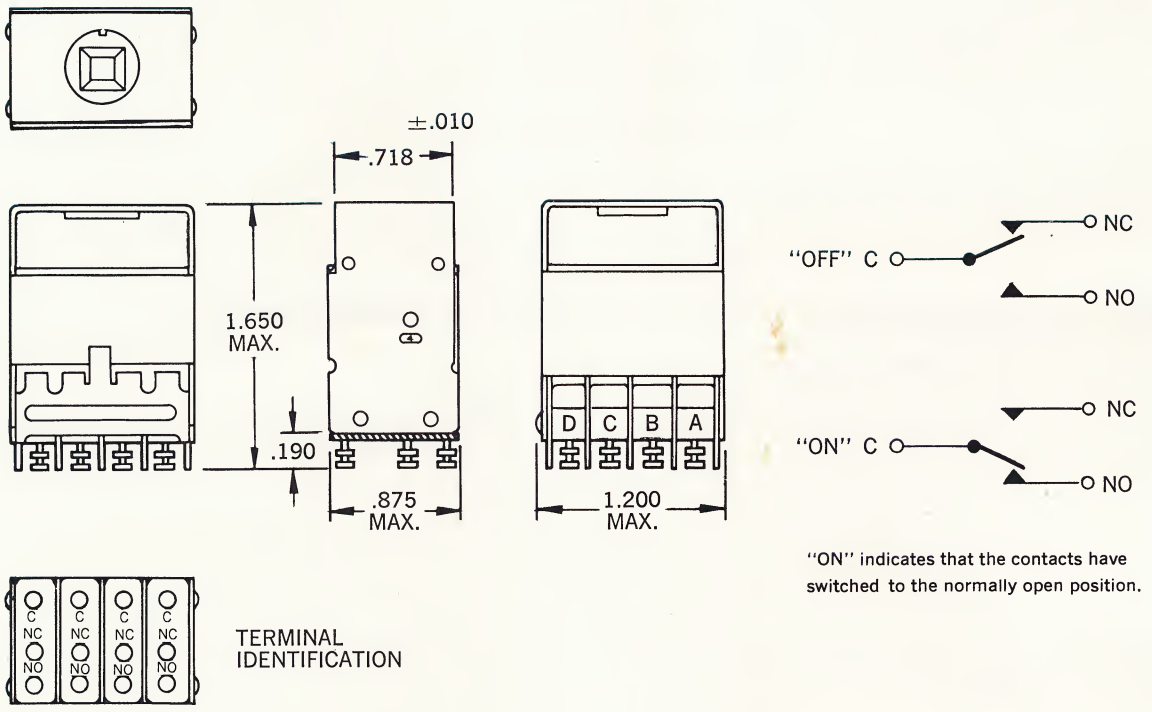
OPERATING TEMPERATURE RANGE: −55°C to +85°C

WEIGHT: .110 lbs. max.

MASTER SPECIALTIES COMPANY

1640 MONROVIA, COSTA MESA, CALIFORNIA 92627 • PHONE (AREA CODE 714) 642-2427 • TELEX 6-78433

OVERALL DIMENSIONS



ORDERING INFORMATION

The sequence actuator is designed to allow the 4 switches to be actuated in any programmed sequence desired. Each switch module is actuated by an independent cam and all cams are driven by a common shaft. Each cam has 12 positions. (See chart on the right.) Because of the numerous combinations a convenient form (MK 21) is included with this data sheet, just fill in position required on the form and mail to MSC. From this form MSC will make a specification control drawing and will assign your particular unit a MSC part number so that any number of units may be ordered merely by calling out this part number. Two prints of this specification control drawing will be furnished by MSC at no cost.

CAM STEP NO.	SWITCH IDENTIFICATION			
	A	B	C	D
1	—	—	—	—
2	ON	—	—	—
3	—	ON	—	—
4	—	—	ON	—
5	—	—	—	ON
6	ON	ON	ON	ON
7	—	—	—	—
8	ON	ON	ON	ON
9	ON	—	ON	—
10	—	ON	—	ON
11	ON	—	—	ON
12	—	ON	ON	—

TYPICAL PROGRAM

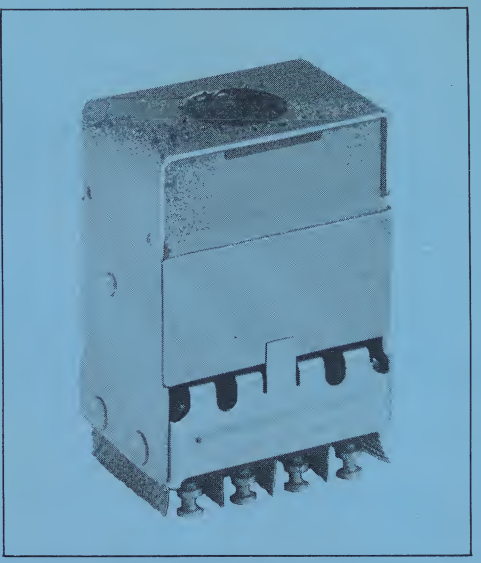
MASTER SPECIALTIES SERIES 22 SEQUENCE ACTUATOR

COMPANY:

ADDRESS:

CITY: STATE:

ATTENTION:



☐ PLEASE HAVE SALESMAN CALL TO SHOW ME SAMPLES

MY TELEPHONE NUMBER IS: _____ EXT._____

☐ I HAVE A SPECIFIC APPLICATION FOR THE SERIES 22

THE APPLICATION IS:_____

IT CALLS FOR APPROXIMATELY _____ SWITCHES

☐ PLEASE SEND ME ALL FUTURE MASTER SPECIALTIES MAILING

ORDERING INFORMATION

The Series 22 Sequence Actuator is designed to allow the 4 switch modules to be actuated in any programmed sequence desired.

Each switch module is actuated by an independent cam and all cams are driven by a common shaft. Each cam is divided in 12 positions or steps because of the numerous combinations a convenient form is shown on the right: Please fill in position required and mail to MSC. From this form MSC will make a specification control drawing and will assign your particular unit a MSC part number so that any number of units may be ordered merely by calling out this number. Two prints of this specification control drawing will be furnished by MSC at no cost. (Refer to data sheet No. 3025 for additional information).

Fold this sheet with our address side out. Staple or tape it closed and drop it in the mail. No postage required.

CAM	SWITCH IDENTIFICATION			
STEP NO.	A	B	C	D
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

FORM MK 21

FIRST CLASS
PERMIT NO. 305
Costa Mesa, Calif.

BUSINESS REPLY MAIL
No Postage Stamp Necessary if Mailed in the United States

POSTAGE WILL BE PAID BY

MASTER SPECIALTIES CO.

1640 MONROVIA

COSTA MESA, CALIF. 92627